

$$F_{\nabla} = 2\pi \cdot r^3 \frac{\sqrt{\epsilon_B}}{c} \left(\frac{\epsilon - \epsilon_B}{\epsilon + 2\epsilon_B} \right) (\nabla \cdot I)$$

F_{∇} = Optical force on particle towards higher intensity

r = Radius of particle

ϵ_B = Dielectric constant of background medium

ϵ = Dielectric constant of particle

I = Light intensity (W/cm^2)

∇ = Spatial derivative

FIG. 1

FIG. 2

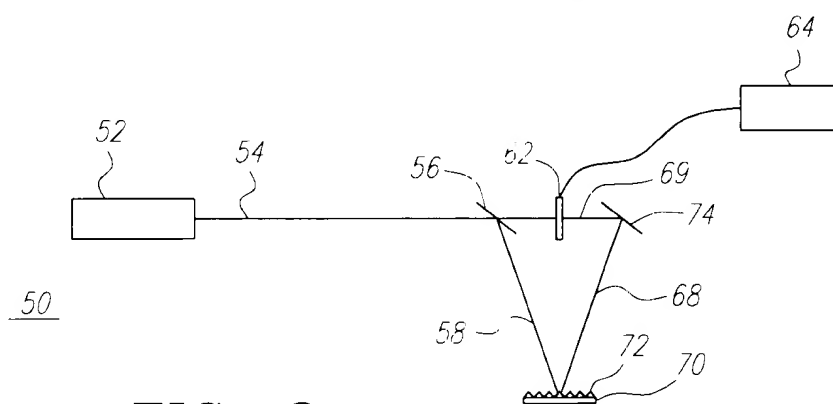
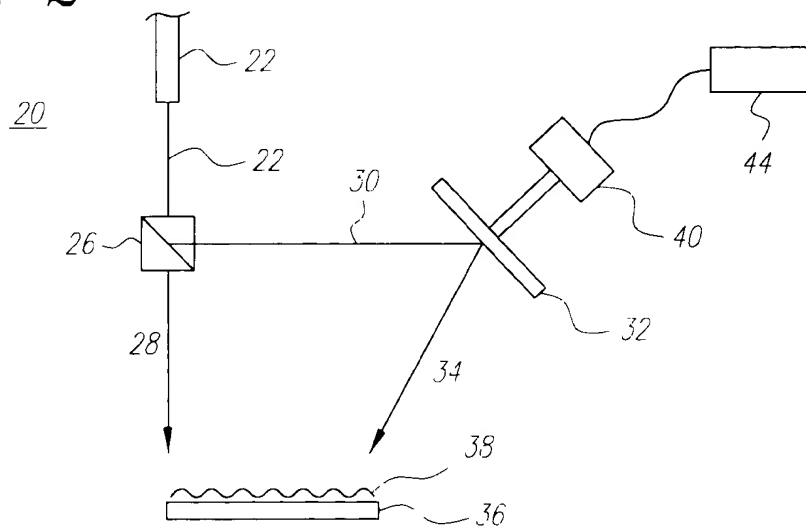


FIG. 3

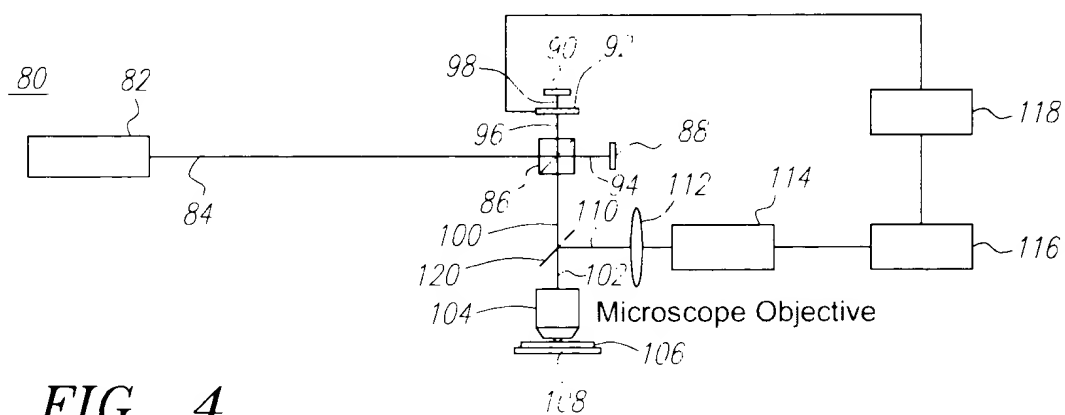


FIG. 4

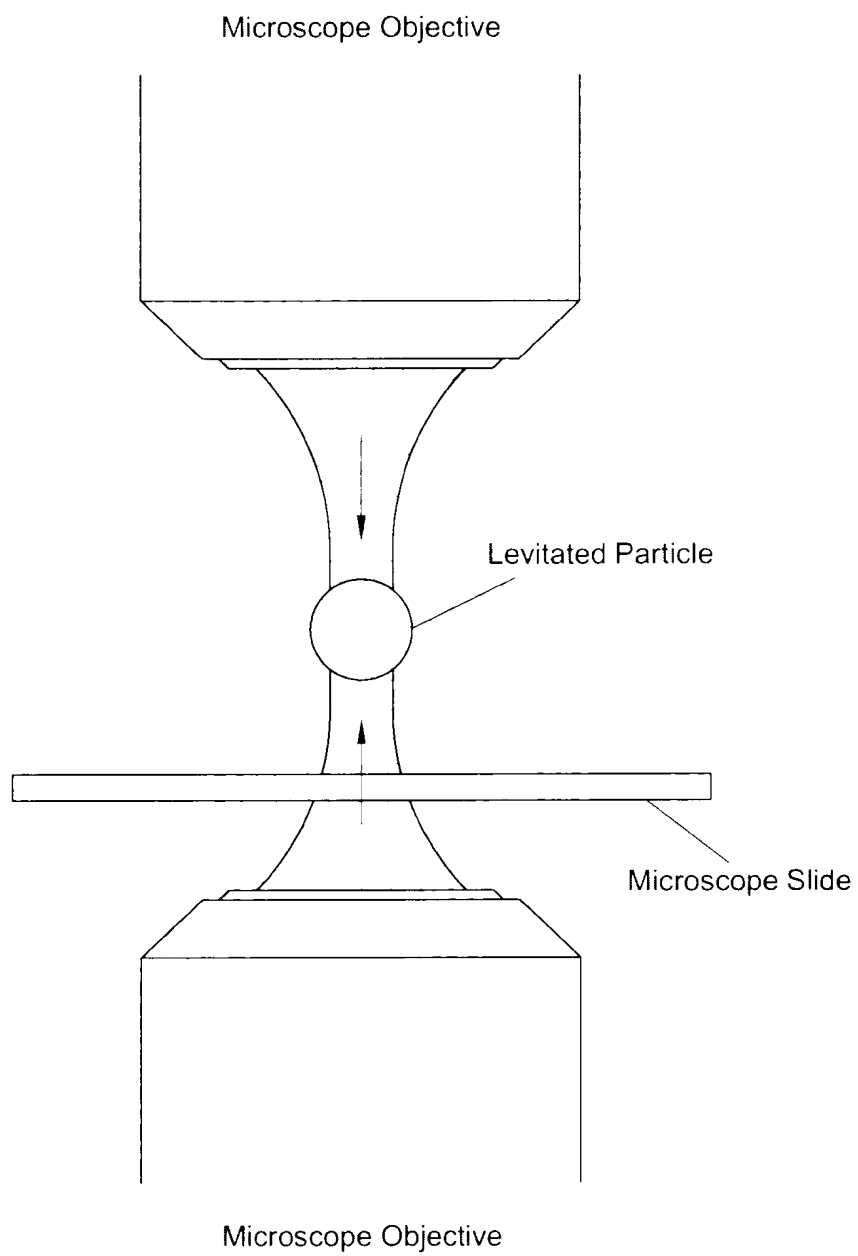


FIG. 4A

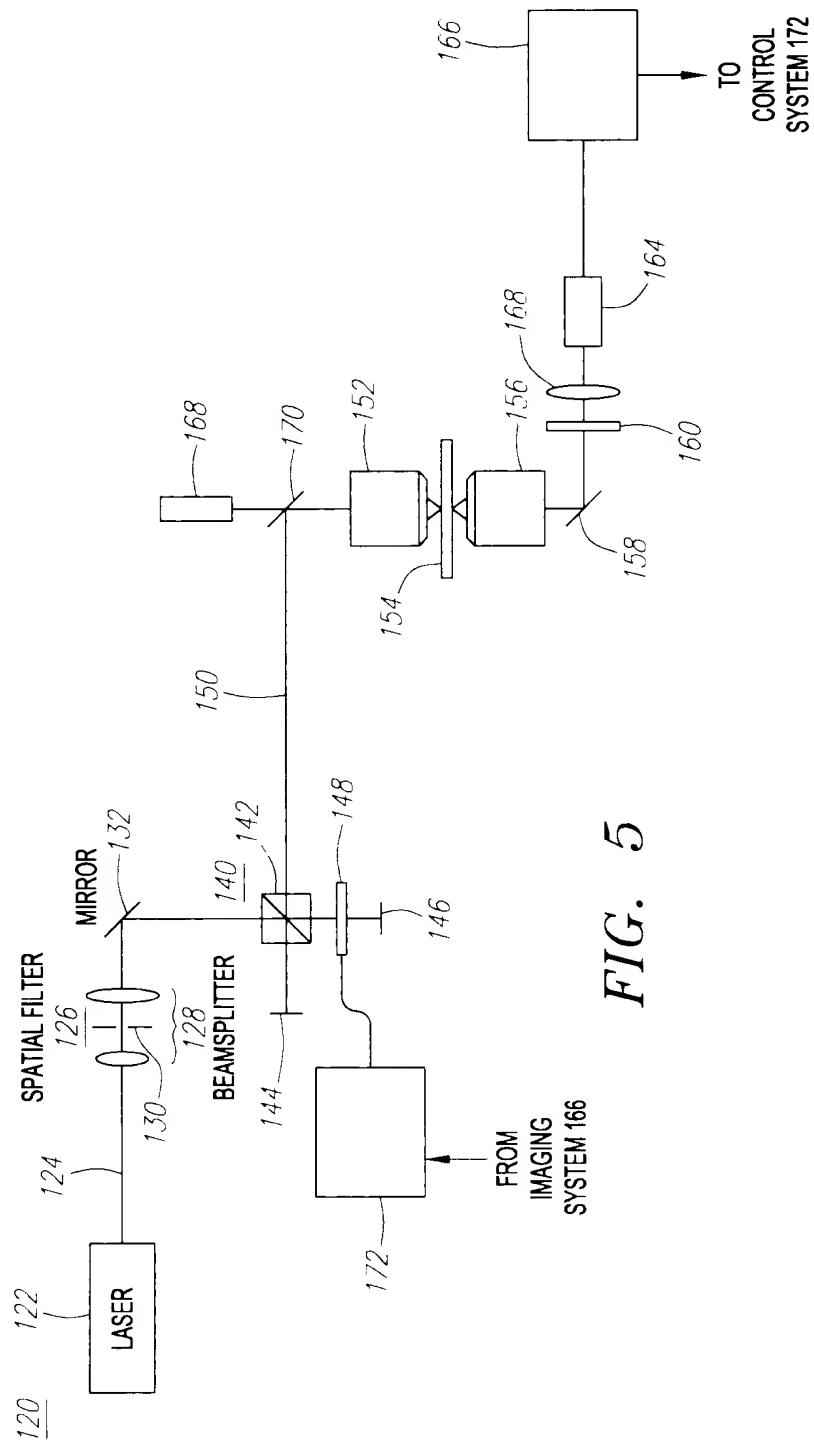


FIG. 5

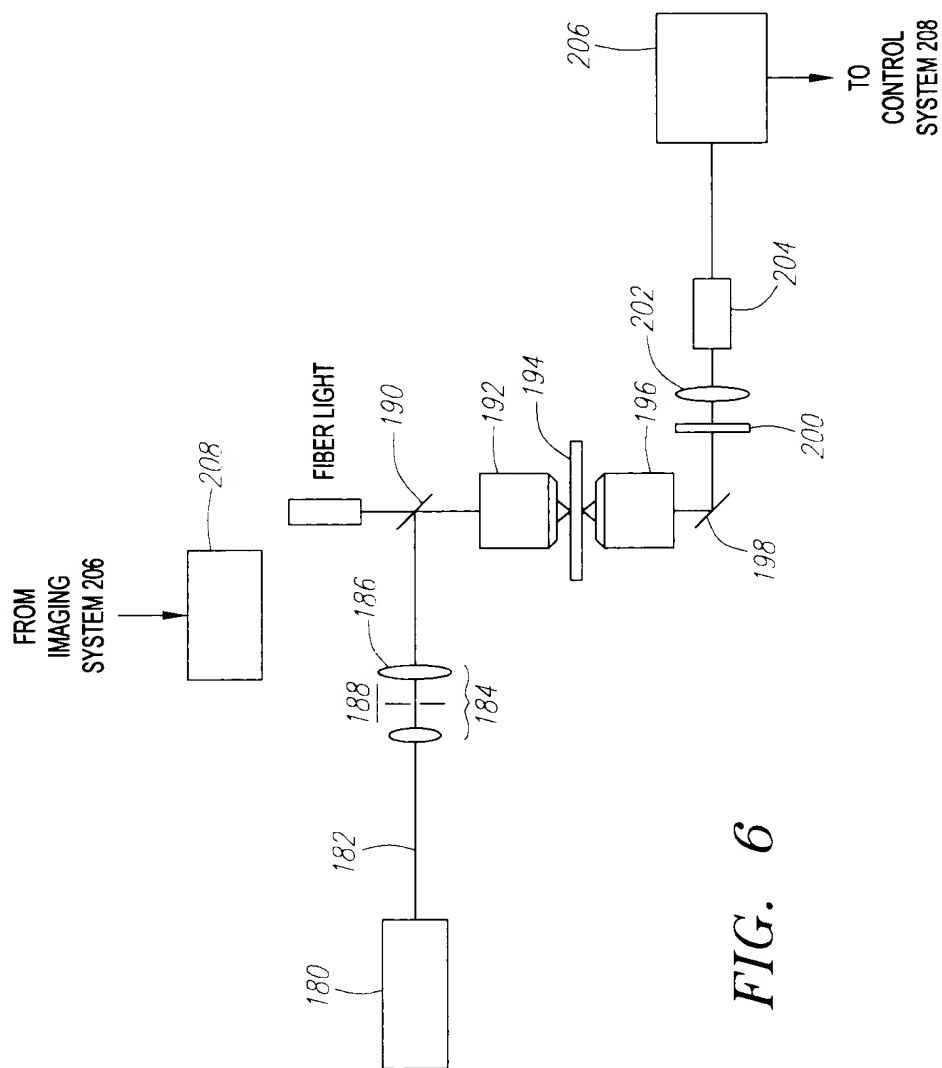
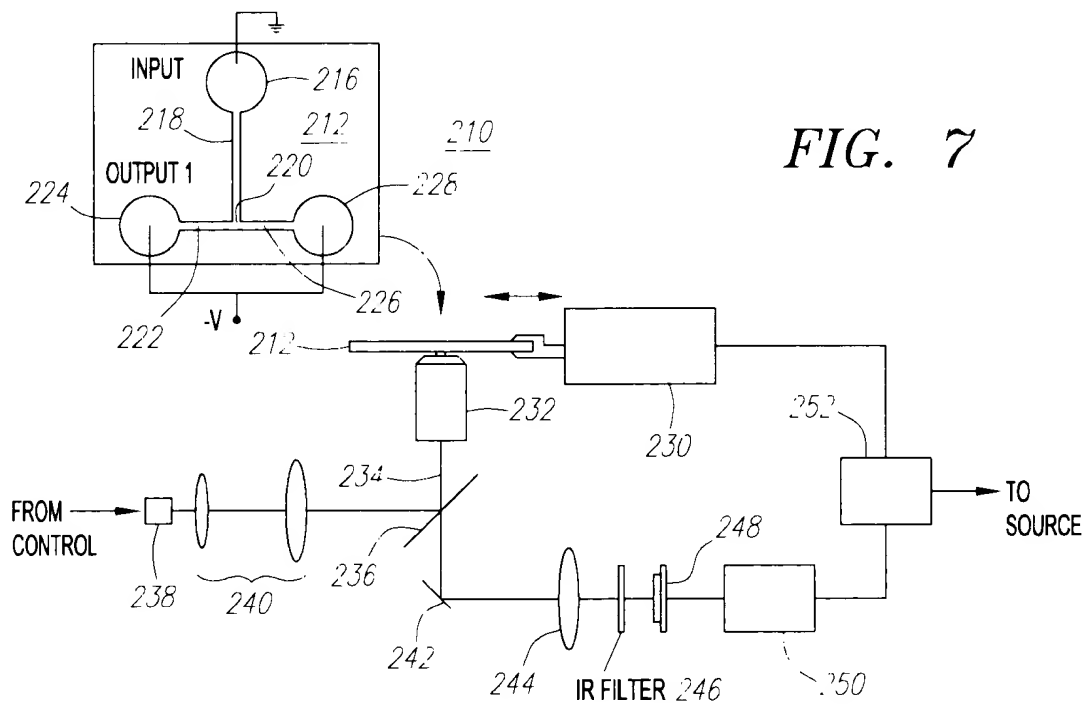
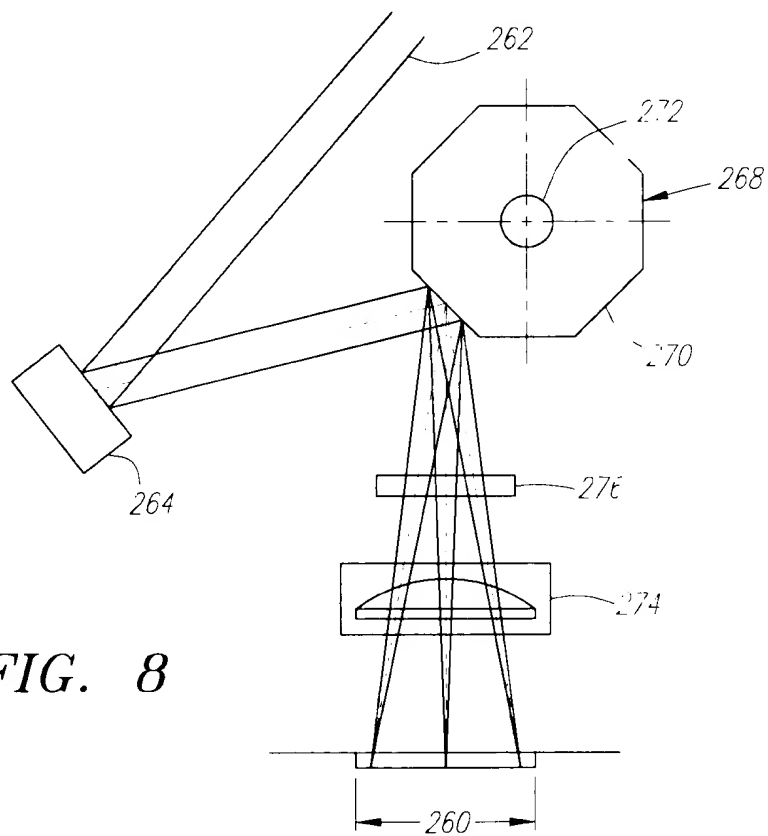


FIG. 6

**FIG. 8**

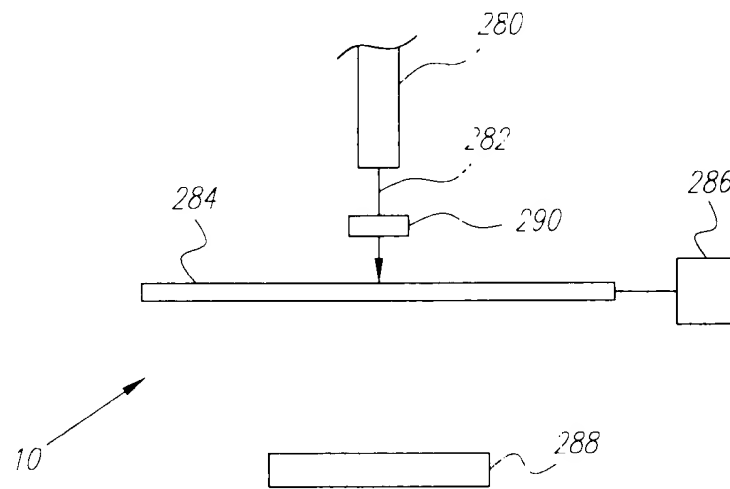


FIG. 9A

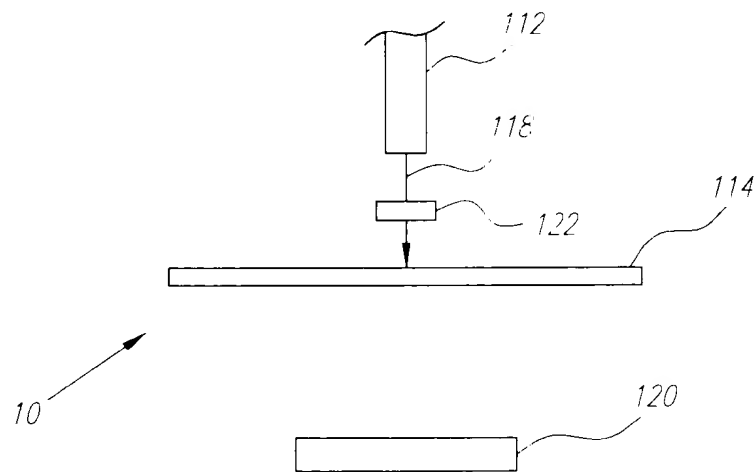


FIG. 9B

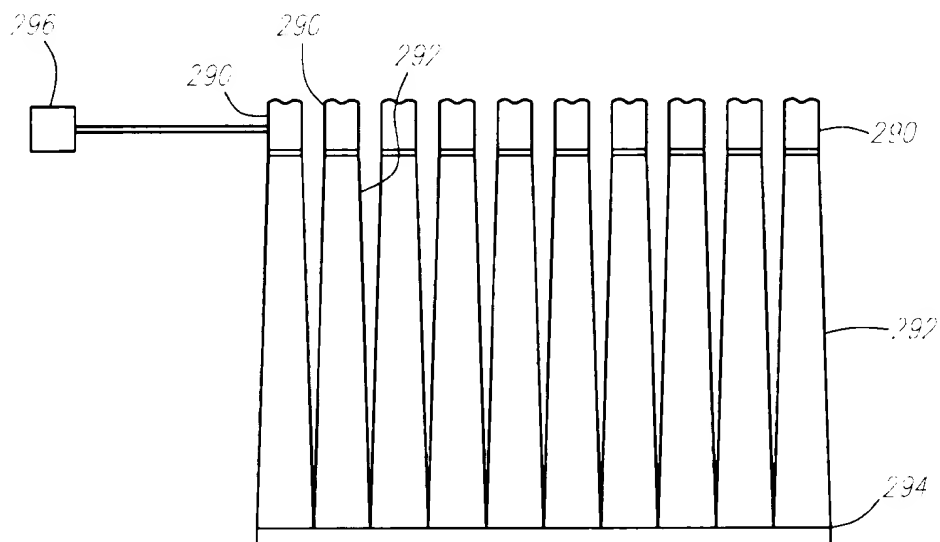


FIG. 10

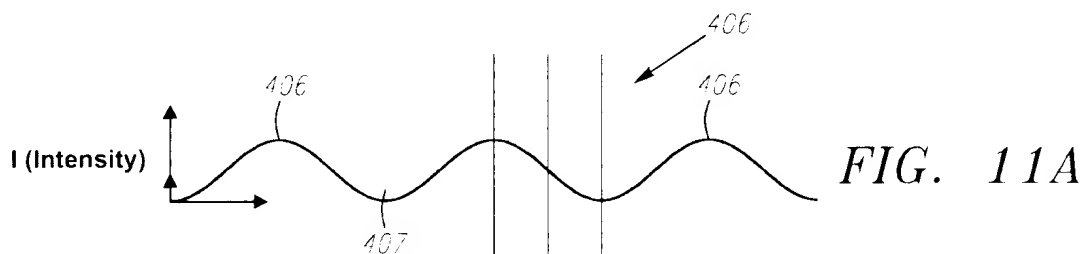


FIG. 11A



FIG. 11B

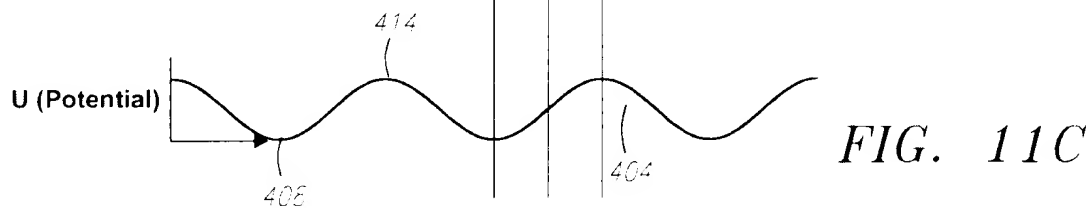


FIG. 11C

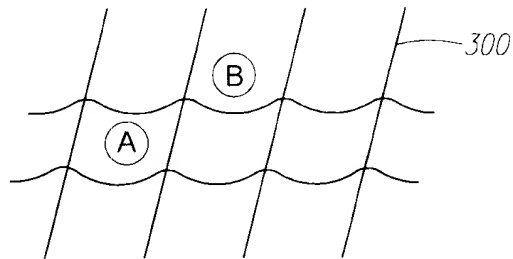


FIG. 12A

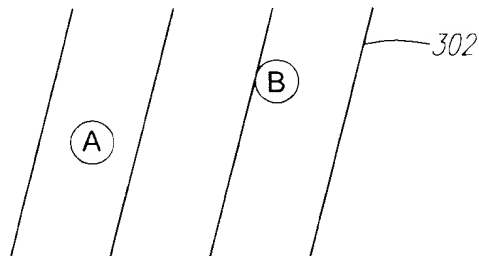


FIG. 12B

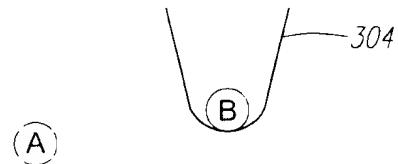


FIG. 12C

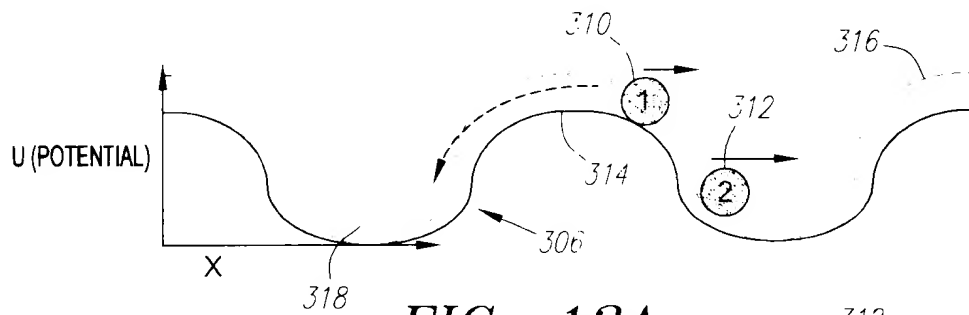


FIG. 13A

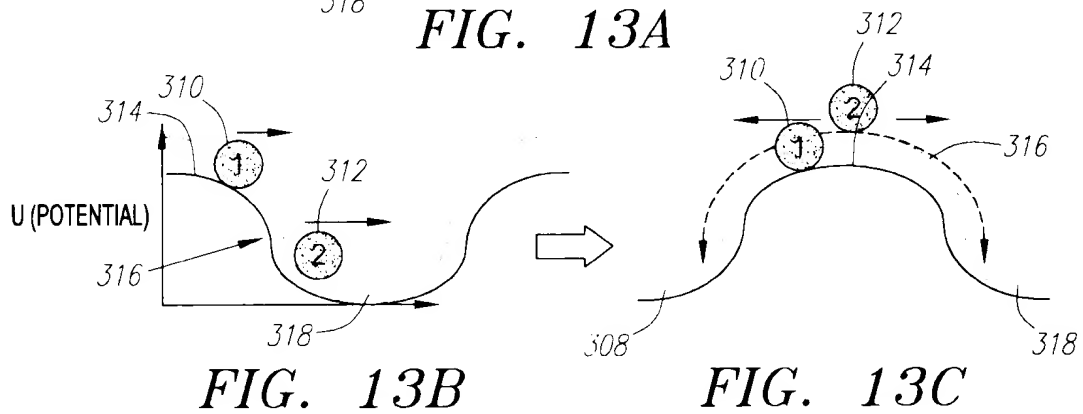


FIG. 13B

FIG. 13C

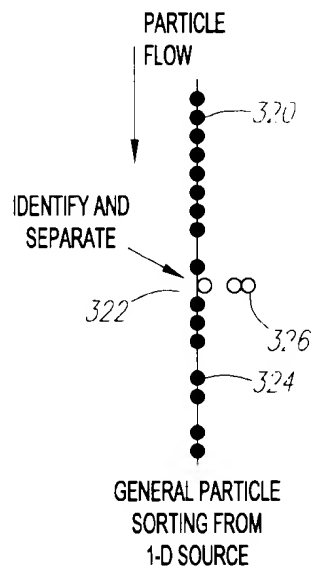


FIG. 14A

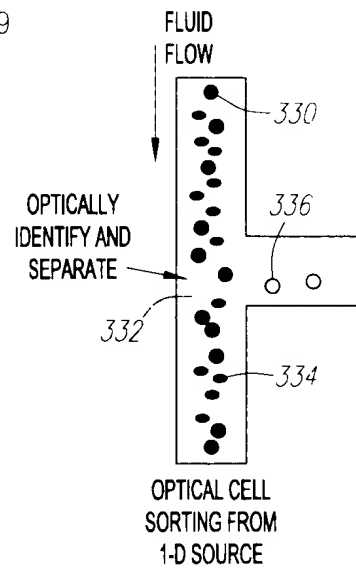


FIG. 14B

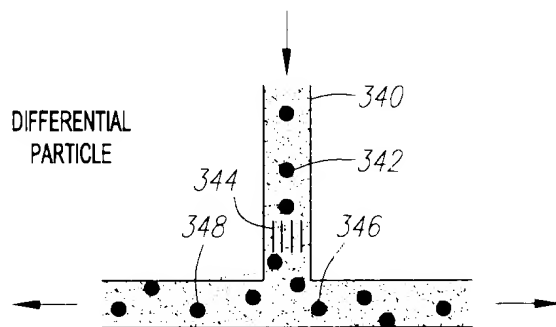


FIG. 15

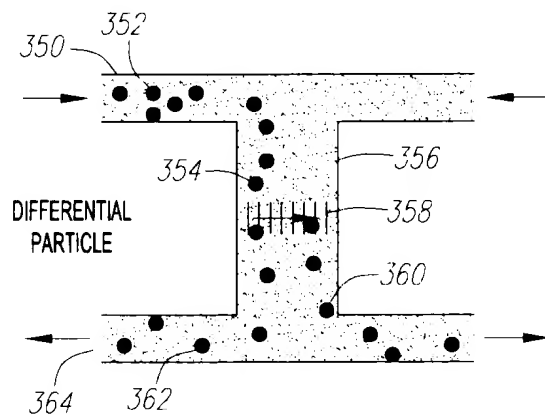


FIG. 16

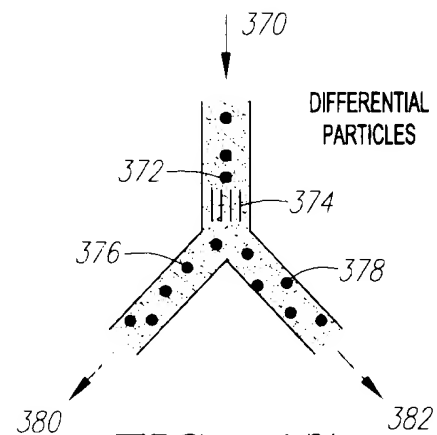


FIG. 17

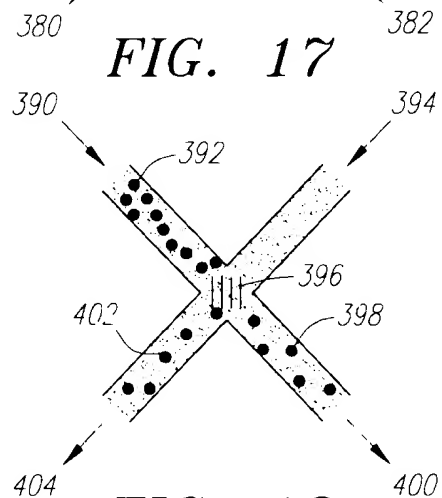


FIG. 18

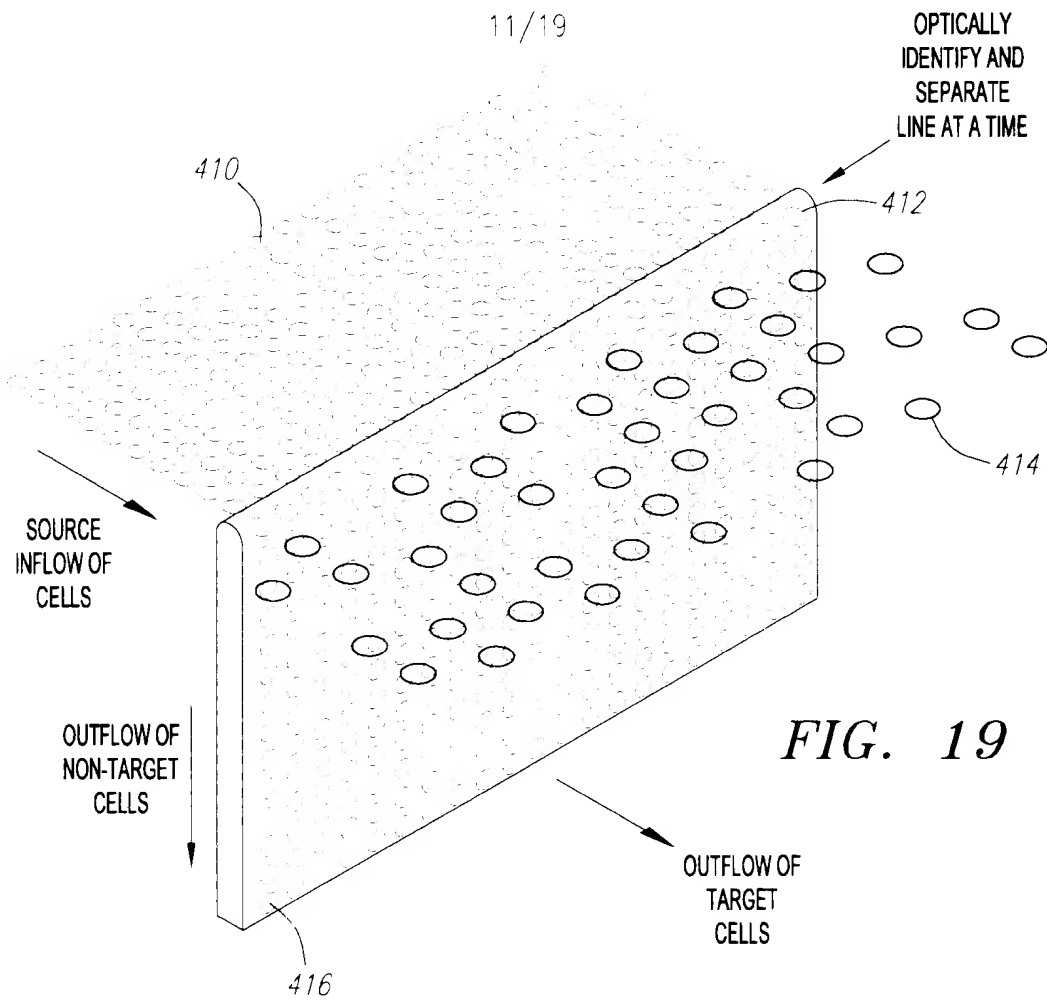


FIG. 19

FIG. 20

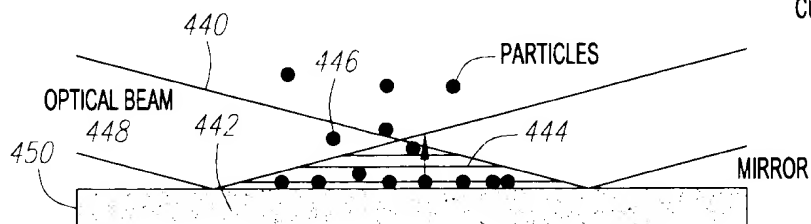
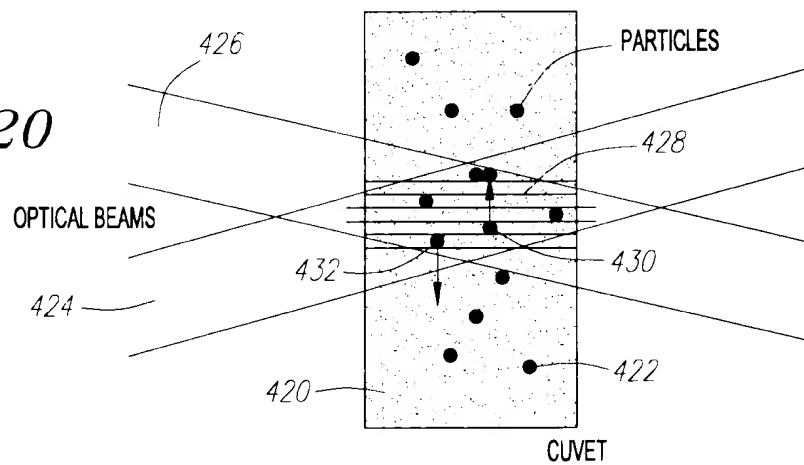


FIG. 21

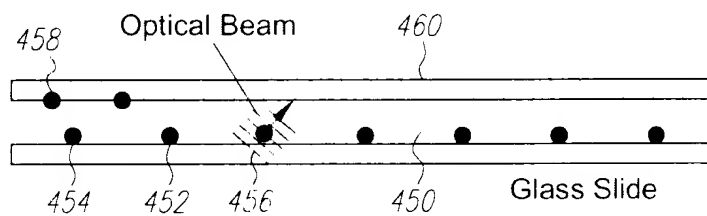
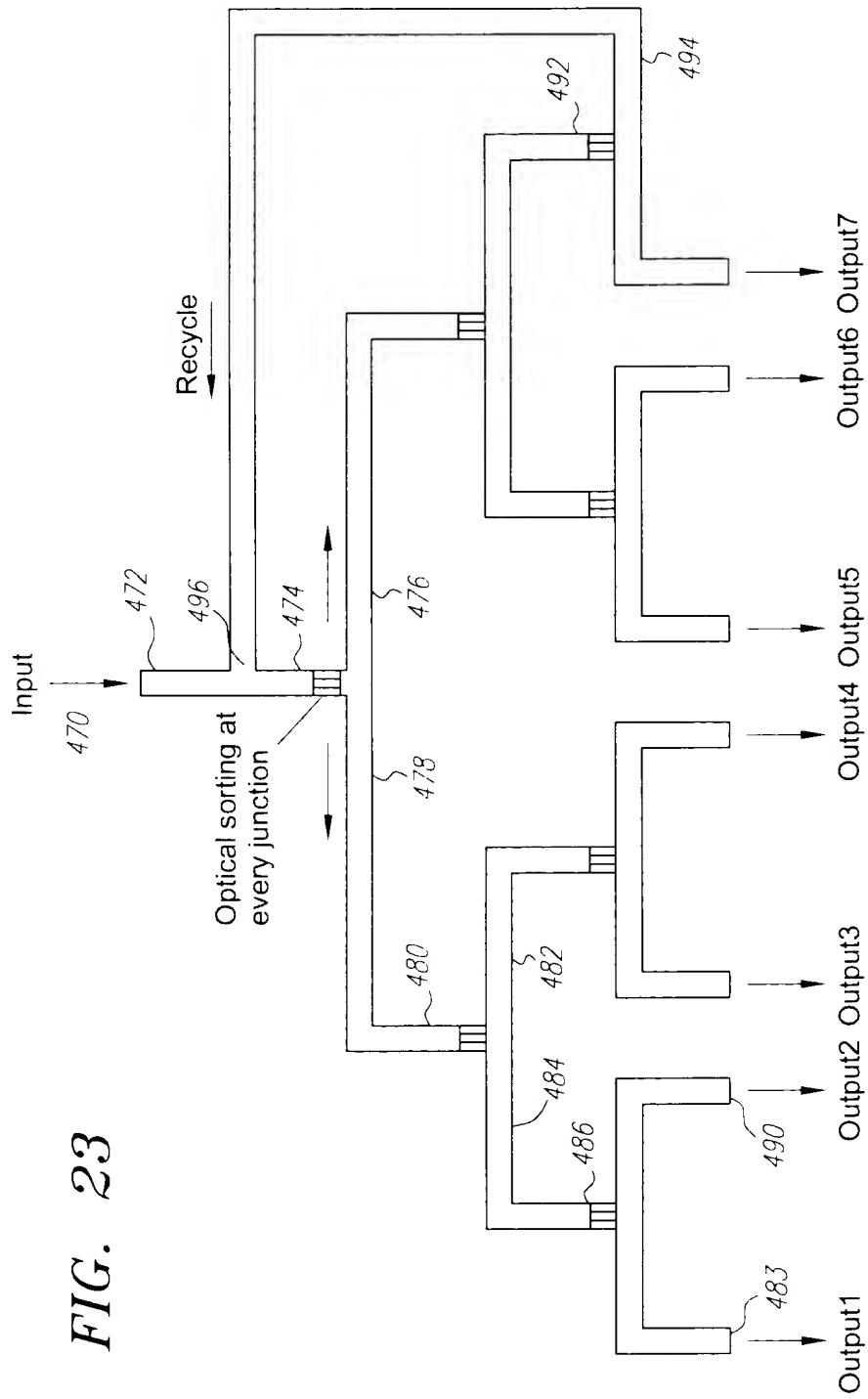


FIG. 22



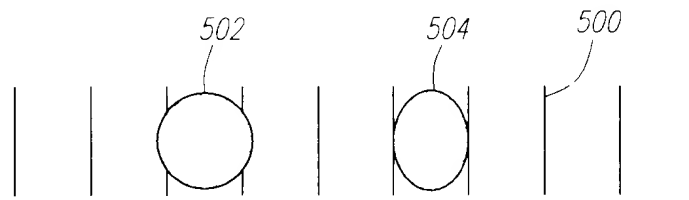


FIG. 24

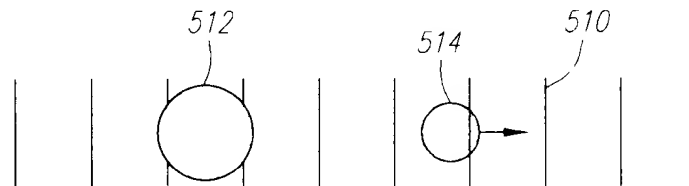
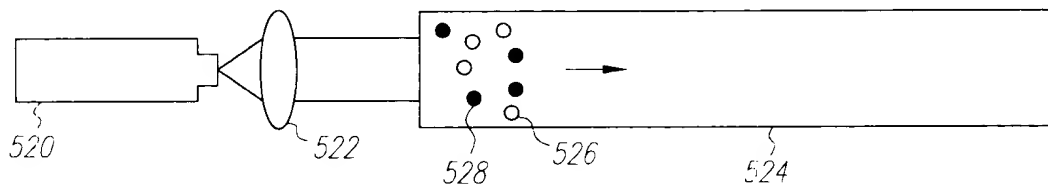


FIG. 25

Before:

SCATTER FORCE SEPARATION



After:

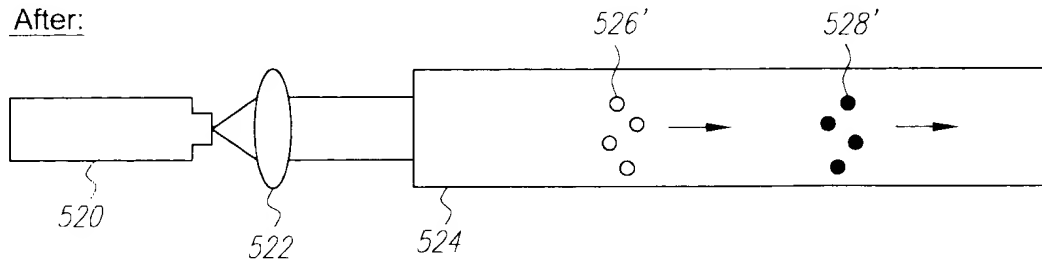


FIG. 26

FIG. 27A

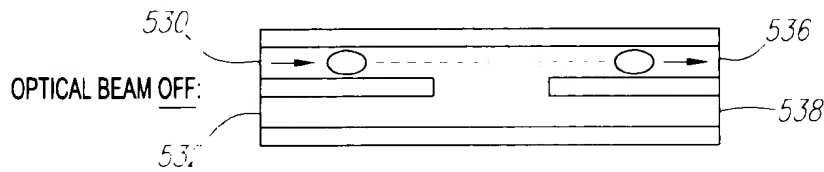
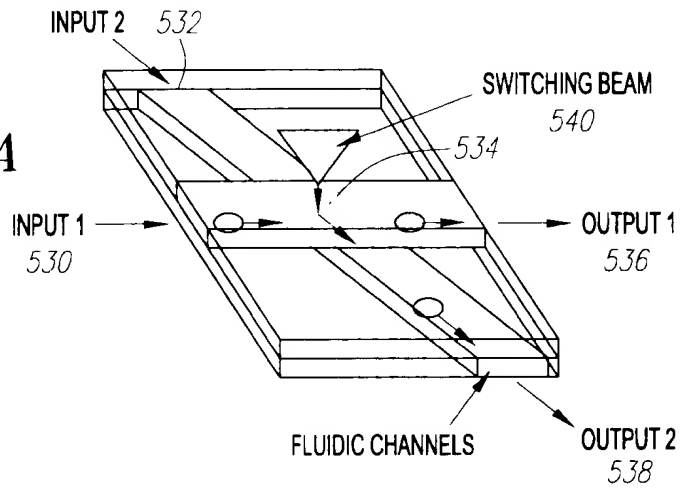


FIG. 27B

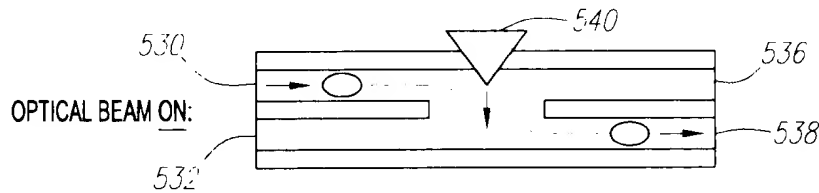


FIG. 27C

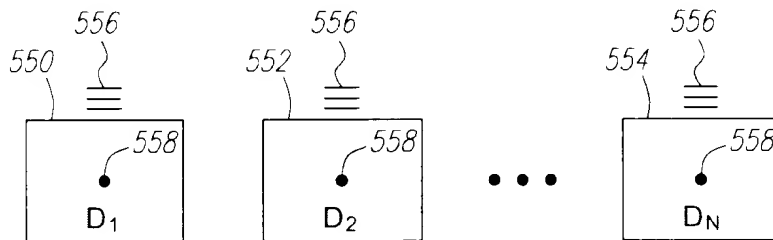
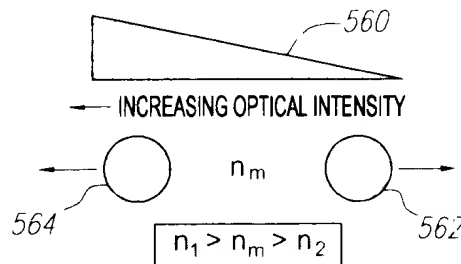
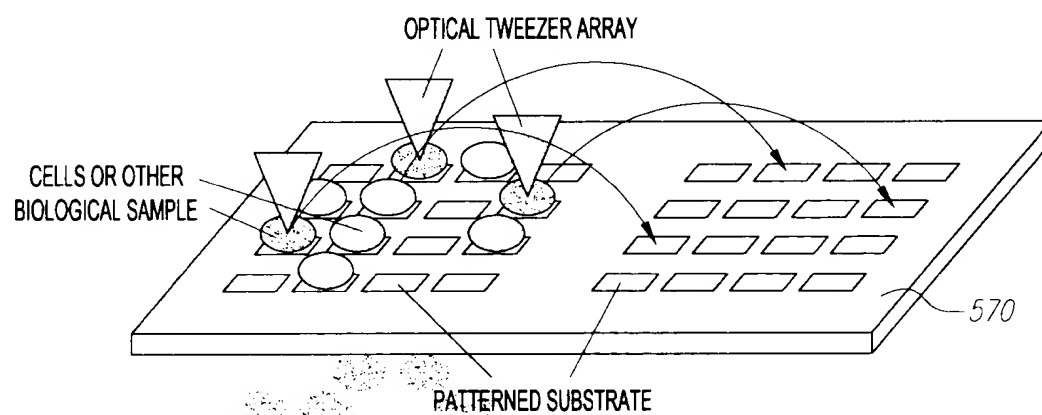
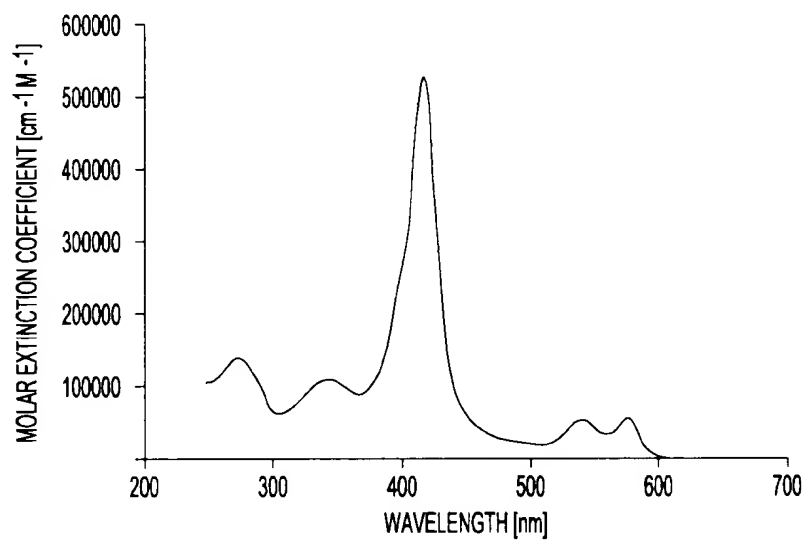


FIG. 28

FIG. 29



*FIG. 30*HEMOGLOBIN - O₂ ABSORPTION SPECTRUM*FIG. 31*

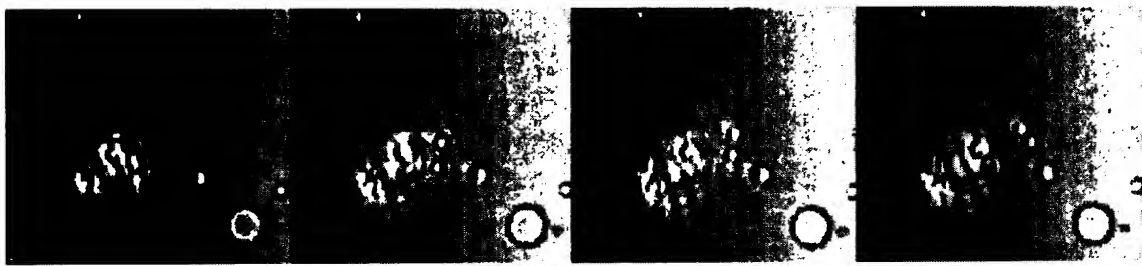


FIG. 32

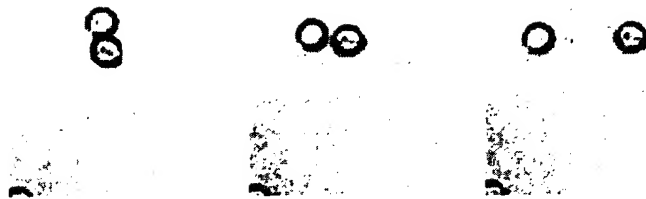


FIG. 33

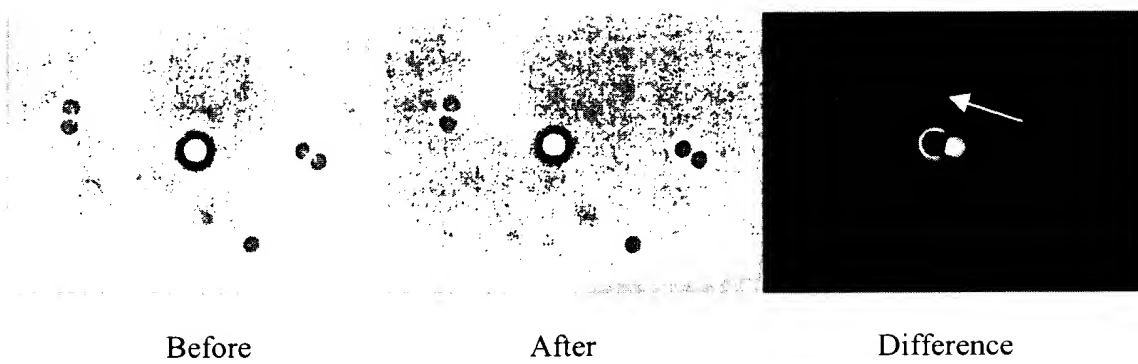


FIG. 34

DISTRIBUTION OF ESCAPE VELOCITIES
READING TAKEN IN PBS/1% BSA BUFFER
RAIN-X COATED SLIDE/CYTOP COATED COVERSIP

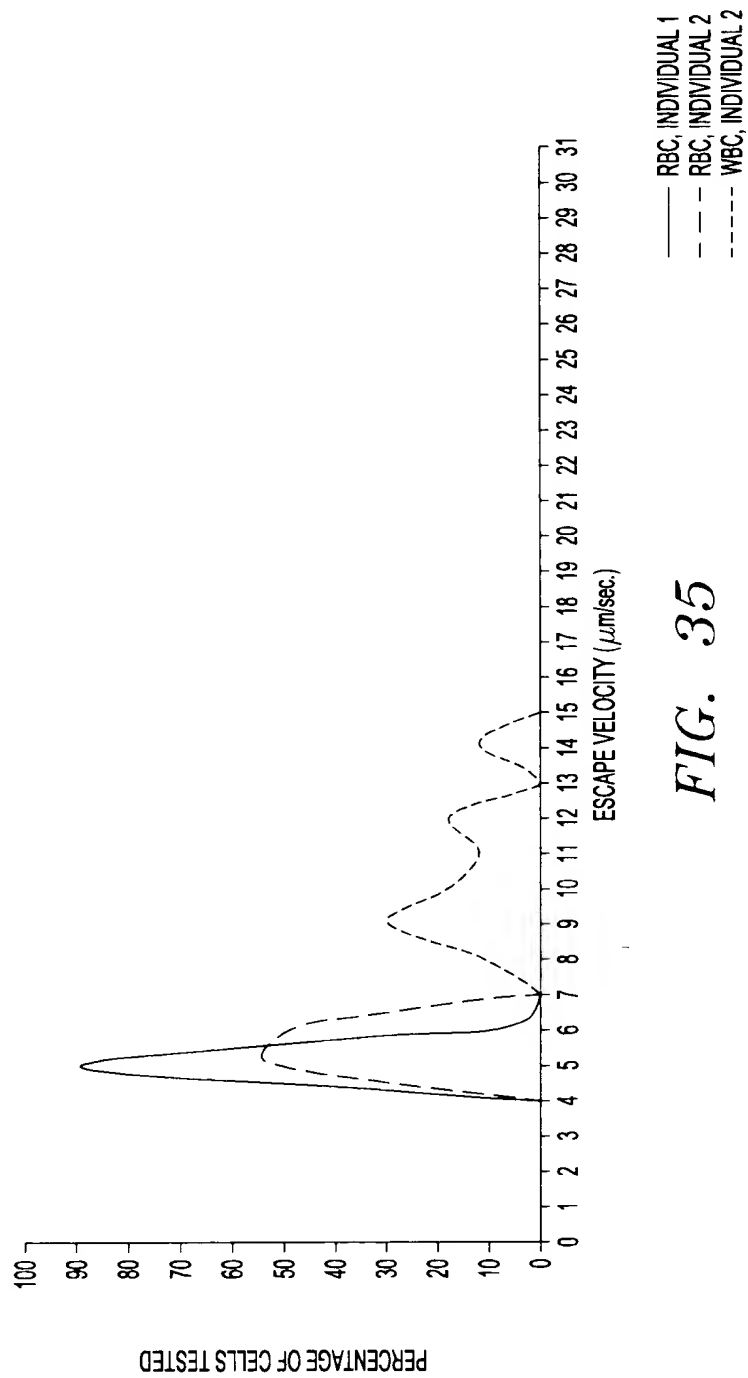


FIG. 35

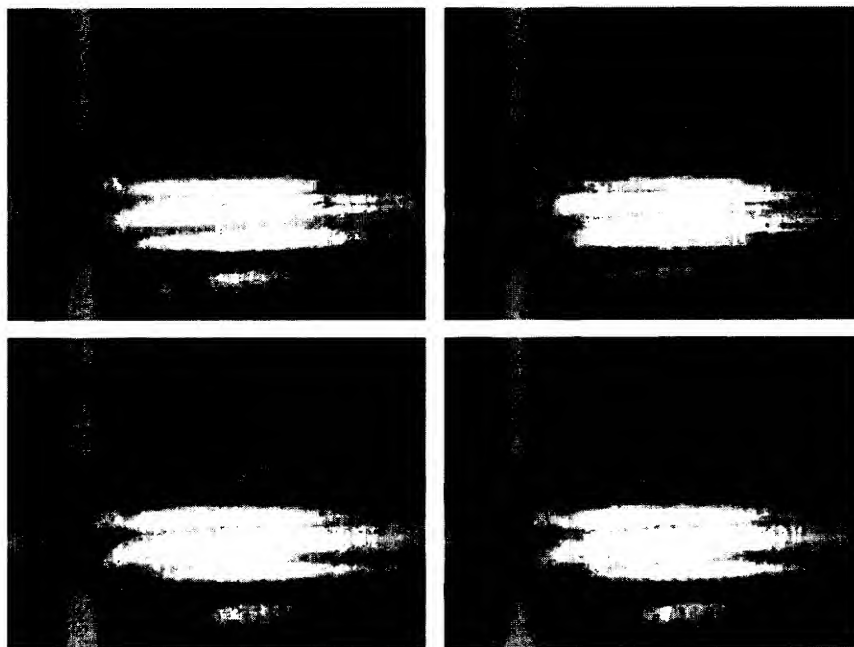


FIG. 36